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ABSTRACT

This bulletin reviews early federal regulation of telegraphy, telephone, and radio communications, and the development of the Radio Acts of 1912 and 1927, the Communications Act of 1934, and the Communications Satellite Act of 1962. A large portion of the discussion focuses on the regulatory power and procedures of the Federal Communications Commission (FCC). (SC)

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Regulation of Wire and Radio Communication

EARLY WIRE REGULATION

Though several earlier acts of Congress dealt with specific telegraph matters, Federal regulation of interstate electrical communication may be said to date from passage of the Post Roads Act in 1866. It authorized the Postmaster General to fix rates annually for Government telegrams.

In 1887, Congress gave the Interstate Commerce Commission (ICC) authority to require telegraph companies to interconnect their lines for more extended public service.

Government regulation of the accounting practices of wire communication carriers began with the Mann-Elkins Act of 1910. That act authorized the ICC to establish uniform systems of accounts for telegraph and telephone carriers, to make valuation studies of certain wire telegraph companies, and to be informed of extensions and improvements in order to keep these valuation studies up to date. Telephone and telegraph carriers were required to file monthly and annual financial reports with the ICC.

EARLY RADIO REGULATION

The Mann-Elkins Act also gave the ICC certain regulatory powers over radiotelegraph carriers. This statute, in effect, extended provisions of the Interstate Commerce Act of 1887 to cover wireless telegraph.

Meanwhile, the usefulness of radiotelegraphy in protecting life and property at sea became so apparent that a preliminary international wireless conference was held in Berlin in 1903 to consider a common distress call for ships and to provide for wireless communication between ships and shore as well as between ships.

WIRELESS SHIP ACT OF 1910

The first legislation dealing with marine radio was approved by Congress in 1910. Known as the Wireless Ship Act, it required installation of wireless apparatus and operators on large sea-going passenger vessels. Enforcement of this act was made the responsibility of the Secretary of Commerce and Labor, who at that time administered the domestic maritime navigation laws.

In 1912, the Third Radio Telegraph Conference in London approved regulations to assure uniformity in practices of radiotelegraph services. The enforcement of these regulations, as far as the United States was concerned, was delegated to the Secretary of Commerce and Labor.

Later that same year, Congress amended the Wireless Ship Act of 1910 to cover large cargo vessels, to require an auxiliary source of power supply on ships, an adequate means of communications between the radio room and bridge, and two or more skilled radio operators on certain passenger vessels.

RADIO ACT OF 1912

Regulations for further wireless uniformity were adopted by the International Radio Telegraph Conference in London in 1912. To carry out its obligations under that treaty, the United States enacted the Radio Act of 1912. This was the first law for the domestic control of radio communication in general.

The Radio Act regulated the character of emissions, transmission of distress calls, set aside certain frequencies for Government use, and placed licensing of wireless stations and operators under the Secretary of Commerce and Labor. Licensing began that year.

WORLD WAR I PERIOD

During the period from August 1, 1918 to July 31, 1919, the Federal Government exercised control over telephone and telegraph communications as a war measure.

In 1920, Congress authorized the Secretary of the Navy to use Government-operated radio stations for the transmission of press and private commercial messages between ships and between ships and shore, at reasonable rates subject to review by the ICC.

The Transportation Act of 1920 directed the ICC to prescribe the depreciation rates and charges of telephone and telegraph companies. Also in 1920, the Interstate Commerce Act was amended to permit consolidation of telephone companies when approved by the ICC.

An Executive Order, issued in 1921 pursuant to the Cable Landing License Act, authorized the Department of State to receive all applications to land or operate ocean cables, and to advise the President on the granting or revocation of such licenses. Presidents between 1869 and 1921 had exercised this control under their broad executive powers.

RADIO ACT OF 1927

The Radio Act of 1912 did not anticipate or provide for broadcasting. However, this did not present any serious problems prior to the first World War. Early broadcasting was all AM.

In 1919 broadcasters were classified as "limited commercial stations." In 1922 the "wavelength" of 360 meters (approximately 830 kilocycles) was assigned for the transmission of "important news items, entertainment, lectures, sermons, and similar matter." Stations engaged in this service held limited commercial authorizations from the Department of Commerce.

Recommendations of the First National Radio Conference, held in Washington in 1922, resulted in further regulations by the Secretary of Commerce. A new type of broadcast station came into being, with minimum power of 500 watts and maximum not to exceed 1,000 watts. Two frequencies (750 and 833 kilocycles) were assigned for program transmission.

So rapid was the growth of broadcast stations that, upon recommendation of subsequent National Radio Conferences (1923 and 1924), the Department of Commerce allocated the present standard broadcast band (AM being the only form of broadcast at that time), and authorized power up to 5,00 watts for experimental use.

The increase in the number of broadcast stations caused so much interference that, in 1925, a Fourth National Radio Conference asked for a limitation on broadcast time and power. The Secretary of Commerce was unable to deal with the situation because court decisions held that the Radio Act of 1912 did not give him sufficient authority. Many broadcasters jumped their frequencies and increased their power and operating time at will. This caused bedlam on the air.

In 1926 President Coolidge urged Congress to remedy matters. The result was the Dill-White Radio Act of 1927, which was signed February 23, 1927.

FEDERAL RADIO COMMISSION

The Radio Act of 1927 created a five-member Federal Radio Commission with regulatory powers over radio, including the issuance of station licenses, the allocation of frequency bands to various services, assignment of specified frequencies to individual stations, and control of station power.

However, the same act delegated to the Secretary of Commerce authority to inspect radio stations, to examine and license radio operators, and to assign radio call signals.

The Federal Radio Commission started to function on March 15, 1927. Much of its early activity was devoted to resolving the problem in the broadcast band. It was impossible to care for the 732 AM stations as then operating. New rules and regulations caused about 150 of them to surrender their licenses.

Under the Radio Act of 1927, the Federal Radio Commission was, at the end of that year, to become an appellate body to review decisions of the Radio Division of the Department of Commerce in making allocations. Its authority as a licensing agency was extended annually by Congress until 1929, when an act was approved continuing its powers "until otherwise provided by law."

COMMUNICATIONS ACT OF 1934

The Radio Act of 1927 did not give the Federal Radio Commission jurisdiction over telegraph and telephone carriers. As previously indicated, the Post Office Department, the ICC and the Department of State exercised certain authority with respect to telegraph service; some regulation of telephone service was under the ICC and the Federal Radio Commission had supervision over broadcasting. This divided and sometime overlapping authority caused much confusion.

At the request of President Franklin D. Roosevelt in 1933, the Secretary of Commerce appointed an interdepartmental committee to study the situation. The committee reported that "the communications service, as far as Congressional action is involved, should be regulated by a single body." Accordingly, it recommended the establishment of a new agency that would regulate all interstate and foreign communication by wire and radio, including telegraph, telephone and broadcast.

On February 26, 1934, the President sent a special message to Congress urging creating of the Federal Communications Commission for that purpose. The next day Senator Dill and Representative Rayburn introduced bills to carry out this recommendation. The Senate bill (S. 3285) passed the House on June 1, 1934, and the conference report was adopted by both houses eight days later.

The Communications Act was signed by President Roosevelt on June 19, 1934. Some parts of it became effective July 1 of that year; others on July 11.

The Communications Act coordinated in the Federal Communications Commission broadcast regulatory functions previously exercised by the Federal Radio Commission, which was abolished by the Communications Act; supervision of certain telegraph and telephone operations formerly vested in the Interstate Commerce Commission; jurisdiction over Government telegraph and telephone operations formerly vested in the Interstate Commerce Commission; jurisdiction over Government telegraph rates that had been under the Post Office Department, and some powers of the Department of State affecting the Cable Landing License Act. The Communication Act gave the Federal Communications Commission additional authority, including supervision of rates of interstate and international common carriers, and domestic administration of international agreements relating to electrical communication generally.

The stated purposes of the act are "regulating interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all the people of the United States a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges ... the national defense ... promoting safety of life and property through the use of wire and radio communication ..."

It applies "to all interstate and foreign communication by wire or radio and all interstate and foreign transmission of energy by radio, which originates and/or is received within the United States, and to all persons engaged within the United States in such communication or such transmission of energy by radio, and to the licensing and regulating of all radio station...."

The statute consists of six major sections or "titles".

Title I defines the purposes of the act, the terms and duties of the Commissioners, and confers general powers.

Title II covers communications common carriers that are subject to Commission regulation.

Title III relates to radio and is divided into three parts: radio licensing and regulation in general, radio equipment, radio operators on board ship, and radio installations on vessels carrying passengers for hire.

Title IV spells out procedural and administrative provisions.

Title V prescribes penalties and forfeitures for violators.

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Title VI prohibits unauthorized interception and publication of communications by wire or radio and gives the President certain powers to deal with communication matters in event of war or other national emergency.

Extensive revisions of the act - particularly in 1952 and during the period 1960 to 1962 - made important changes in the Commission's organization and procedures. The Communications Satellite Act of 1962 gave the FCC new responsibilities with respect to space communication. A Presidential Executive Order of 1963 augmented its duties to ready the communication services under its jurisdiction to deal with possible national emergency situations.

FEDERAL COMMUNICATIONS COMMISSION

The Federal Communications Commission began to function on July 11, 1934. It is composed of seven Commissioners appointed by the President, subject to confirmation by the Senate. One of the Commissioners is designated Chairman by the President. Not more than four Commissioners may be members of the same political party. The normal term of a Commissioner is seven years.

The authority of the Commission extends to Guam, Puerto Rico and the Virgin Islands, but not to the Canal Zone. It does not regulate Federal Government radio operation.

The Communications Act limits licensing by the Commission to citizens of the United States. It denies the license privilege to corporations in which any officer of director is an alien, or of which more than one-fifth of the capital stock is owned or controlled by foreign interests. In the interest of air safety, waivers may be granted to certain noncitizen pilots of aircraft operating in this country.

The Commission is responsible for the domestic administration of wire and radio provisions of treaties and other international agreements to which the United States is a party.

Under the Act, the FCC's regulatory powers fall into three major categories - common carrier services (telephone and telegraph by means of radio and wire, including submarine cable); non-broadcast radio services (safety and special); and broadcast (or program) services.

COMMON CARRIER REGULATION

The Commission regulates interstate and foreign communication by telephone and telegraph, whether by wire (including submarine cable), radio, or satellite. Purely intrastate communication is not subject to FCC jurisdiction but comes under the authority of state utility commissions.

Among its regulatory provisions, the act requires every common carrier to furnish service upon reasonable request and at reasonable charges. No carrier may construct or acquire additional interstate facilities, or curtail or discontinue interstate service, without Commission approval. All charges, practices, classifications and regulations in connection with interstate and foreign communication service must be just and reasonable. To implement this requirement, the common carriers file tariff schedules with the FCC, and the rates and regulations in those schedules are subject to Commission review and regulation.

The FCC regulates rates for interstate telephone and telegraph services, as well as for services between the United States and foreign and overseas points, and ships at sea. It also reviews the adequacy and quality of these services.

Repeal of the Post Roads Act in 1947 did away with special domestic telegraph rates for the Federal Government. The Government never has had special telephone rates.

To aid its regulation of rates and services, the Commission is empowered to prescribe the forms of records and accounts kept by the carriers. Under this authority, it has established uniform systems of account for them to follow. Commission regulation in this respect includes the establishment and maintenance of original cost accounting, continuing property records, pension cost records, and depreciation records.

The Commission regulates the interlocking of officers and directors of common carriers, it being unlawful for any person to hold office in more than one carrier subject to the act unless specifically authorized by the FCC. The Commission also passes upon applications of domestic telephone and telegraph carriers for authority to merge or consolidate.

The Commission licenses the operation of common carrier radio stations under provisions of the act that require the licensing of all radio transmitters.

After receiving the approval of the Secretary of State, the Commission grants authority to land submarine cables in this country to connect with other countries.

SATELLITE COMMUNICATION

The Communications Satellite Act of 1962 provides for U. S. participation in a global commercial communications satellite system by a private corporation - the Communications Satellite Corporation - under Government regulation. The principal tasks of that corporation are to plan, establish and operate the system in cooperation with other nations to furnish, for hire, satellite relay of international and interstate telephone and telegraph services, including television.

The U. S. portion of the system is subject to the same regulatory controls by the FCC as are other communications common carriers. The Commission must ensure effective competition in the procurement of equipment and approve all financing by the corporation, except the initial stock issue. In addition the FCC must approve the technical characteristics of the satellite system and authorize terminal stations in the U. S.

BROADCAST REGULATION

The Communications Act deems broadcasting not to be a common carrier operation and enjoins the Commission from censoring programs or interfering with the right of free speech on the air. Consequently, FCC regulation of broadcasting concerns two general phases:

1. Allocation of portions of the spectrum to the different types of broadcast services in accordance with the Commission's rules and regulations to carry out the intent of international agreements, the Communications Act and other domestic law affecting broadcasting.

2. Consideration of individual stations, applications to build and operate; assignment of frequencies, power, operating time, and call letters; periodic inspection of equipment and the engineering aspects of operation; renewal of licenses and transfers and assignments of facilities; modifications and changes in existing facilities; and licensing operators of these (as well as all other nongovernment) transmitters.

Broadcast stations are licensed to serve the "public convenience, interest, and necessity." The Communications Act requires applicant to be legally, technically, and financially qualified, and to show that their proposed operation will be in the public interest.

Each broadcast station licensee, in addition to meeting technical requirements, must arrange its program structure so that its operation is in the public interest and, in particular, to meet the needs of the community it serves. The Commission periodically reviews the over-all performance of stations, usually when they apply for license renewal, to see if they have lived up to their obligations and the promises they made in applying for facilities.

The United States Criminal Code prohibits the broadcast of information concerning "any lottery, gift enterprise, or similar scheme," or the utterance of obscene, indecent, or profane language. Congress has since revised the law to permit stations to broadcast information on state-operated lotteries in their own or adjacent states.

The Commission rules prohibit one person or group from operating more than one broadcast station in any one class in the same area, and more than seven stations of the same type in the country as a whole.

The FCC licenses only individual stations, not networks. However, stations owned by or affiliated with networks are subject to chain broadcasting regulations.

NONBROADCAST RADIO REGULATION

The Act requires the Commission to study new uses for radio and encourage its development. The act also stresses the use of radio to protect life and property.

To realize these objectives, the Commission has authorized many uses for radio other than for broadcasting and common carrier services. Collectively these new radio services, together with some older ones, make up a group known as the Safety and Special Radio Services. These services, in effect, embrace practically all radio operations that are neither broadcast nor, for the most part, open for hire to the general public.

The Safety and Special Radio Services cover use of radio by ships afloat and planes in the air; by rail and motor carriers; by agencies concerned with police and fire protection, and national defense and other emergency services; by industry, manufacturers, public utilities and other business; and by individuals for private convenience or for amateur communication.

These services are governed in general by the Communications Act, international agreements, and by the Commission's rules and regulations dealing with the particular class of service authorized to use radio.

CABLE TELEVISION

Cable TV was developed initially in the late 1940's in communities unable to get TV reception because of terrain or distance from TV stations. Master antennas were built to pick up broadcast station signals and feed them by cable to subscribers for a fee.

In 1950, there were only 70 cable TV operations in the United States, serving 14,000 subscribers. Late in 1975, there were 3,360 cable systems serving more than 9.64 million homes in close to 6,000 communities.

Cable offers clearer pictures than home antennas, particularly for color TV, and can offer large numbers of channels for TV signals and various other services. Many systems feature separate channels for weather, stock market reports, wire service news, and FM radio. Some cable operators originate their own programs.

The average cable system has 2,200 subscribers. The largest--in San Diego--has more than 70,000; some have fewer than 100. Most systems offer 6 to 12 channels, the average being 10. Cable TV systems are capable of offering up to 60 different channels. The average monthly fee is around $8 for service; installation fees range from gratis to about $100, but the average is $20.

The cable industry had total subscriber revenues estimated at more than $400 million in 1974. Cable systems are still concentrated in smaller communities; more than half of the systems serve fewer than 1,000 homes each. In large metropolitan areas, where reception is a problem because of the "canyons" created by tall buildings, the number of cable subscribers is increasing.

The Commission asserted limited jurisdiction over cable TV in 1962, first establishing rules in 1965 for systems that received signals by microwave (Microwave stations have always been FCC-licensed.) In 1966, the Commission established rules for all cable systems, whether or not served by microwave. An extensive revision of the rules was adopted February 2, 1972, and became effective March 31, 1972.

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